Hab. Freshwater.

Loc. Mackay's Lake, near Pictou, Nova Scotia.

Obs. The most remarkable point presented by this species is that its flesh-spicule should be identical with that of *Meyenia Everetti*, whose statoblast is covered with a thick crust of long and large birotules, denticulated, with recurved teeth like those of *Meyenia Baileyi* &c., showing that this kind of flesh-spicule may be present in totally different species of freshwater sponges, unless it should be owing to the presence and proximity of *M. Everetti*, which, as above stated, grows in the same lake.

It is remarkable, too, that the spiculation of *Spongilla Mackayi*, both skeletal and flesh-, should be almost identical with those which I have described and illustrated of the freshwater sponge-spicules so abundant in the diluvial deposits of the Altmühl valley, in Bavaria ('Annals,' Nov. 1883, vol. xii. p. 329 &c., pl. xiv. fig. 18, *a*, *b*, *g*, *h*, *i*).

IV.—*On the wide Distribution of some American Freshwater Sponges.* By E. Potts *.

Allusion having been made to the wide distribution of certain species of spiders over the North-American continent, Mr. E. Potts, referring to the freshwater sponge-fauna of this country, said that *Spongilla fragilis*, the first species named in America, described by Dr. Leidy in 1851 from specimens collected near Philadelphia, had since been found abundantly along the Atlantic coast from Florida to Nova Scotia. It had been gathered at several points along the St. Lawrence and in the great lakes through the middle continent, and in the far west had been described by Dr. Bowerbank, in 1863, under the name of *S. Lordii*, as found in the lakes and streams flowing from the Cascade Range in British Columbia, affluents of the majestic Columbia river. The species may therefore be regarded as strictly continental in its range, and until very recently it has been distinctively American. It is a little singular that the only other place in which it has been noticed is in the neighbourhood of Charkow, in Russia, where it was discovered a few months since by Dr. L. Dybowski.

The specimens of this species from Nova Scotia had been collected by Mr. A. H. MacKay, B.A., B.Sc., of Pictou

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Academy, Pictou, N. S., from whom the speaker had recently received a collection of sponges, phenomenal in its character, both as regards the number of genera and species represented and the excellent judgment that had attached to most of them their proper names from apparently very insufficient data. The collection was the result of a few days' search within a limited district, "from lakes in and near the watershed of Nova Scotia, near the borders of the three counties of Pictou, Guysboro, and Antigonish," at elevations of from 100 to 700 feet above sea-level. Of the genus *Spongilla* it contains three species, *S. lacustris*, *S. fragilis*, and *S. iglooiformis*; of the genus *Meyenia* two species, *M. fluviatilis* and *M. Everetti*; of the genus *Heteromeyenia* two, *H. argyrosperma* and *H. Ryderi*; and of the genus *Tubella* one species, *T. pennsylvanica*—eight species, representing four genera. Besides these there were small specimens of another species, evidently new, but whose generic relations could not be determined on account of the absence of statoblasts.

In some respects the most important find in the collection is *Meyenia Everetti*, Mills, this being only the second instance in which the species has been discovered. The original locality was Gilder Pond, upon Mt. Everett, in Berkshire Co., Mass., at an elevation of 1800 or 2000 feet above the sea. It was there collected by Dr. F. Wolle and Mr. H. S. Kitchel, of Bethlehem, Pa., well known for their invaluable work among the desmids and diatoms, and examined simultaneously by Mr. H. Mills, of Buffalo, N. Y., and the speaker. Its most striking peculiarity is the presence all through the dermal tissues of very minute birotulate spicules, the only instance in which these have been observed as characteristic features of the dermal surface in any freshwater sponges, unless the complicated forms found in *Meyenia plumosa*, Carter, may be considered an exception.

These birotulates in the present collection average one third longer than those before examined and are in every way more robust. The speaker was gratified in finding this confirmation of a rule which he has long since observed to hold amongst the infinite variations of size and form noticeable in collections of the same species from various localities, viz. that the spicules of all species increase regularly in size and solidity as we descend from high altitudes towards the sea-level, where is found the extreme limit of the series. He does not attribute this gradation to a change of climatic conditions, but more probably to a gradual and constant improvement in the food-supply or in the siliceous constituent of the water. He has traced the workings of the rule more particularly

through the very variable species *Spongilla lacustris* and *S. fragilis*, in *Meyenia fluviatilis*, in *Heteromeyenia argyrosperma* and *H. Ryderi*, and, lastly and most conspicuously, in *Tubella pennsylvanica*. The extremes in this last series differ so widely that they would hardly be taken to belong to the same species; but the intermediate grades have all been collected largely from the same stream, and as a result several species named in this and other cases have relapsed into synonyms.

V.—*Notices of Fungi in Greek and Latin Authors.* By the Rev. William Houghton, M.A., F.L.S.

It may perhaps interest some of the readers of 'The Annals and Magazine of Natural History' if I bring before them in a collected form all that I have been able to gather on the subject of fungi from the writings of the ancient Greeks and Romans. I am not aware whether anything of this kind has been hitherto attempted by any English writer; but in Germany Dr. H. O. Lenz, in his useful 'Botanik der alten Griechen und Römer' (Gotha, 1859), has collected together the scattered notices of fungi which appear in classical authors, and has added footnotes containing his own observations. The late Dr. Badham, in his 'Treatise on the Esculent Funguses of England' (London, 1863), gives a short account of their classical history; but no systematic collection has, so far as I know, been hitherto made. Although, perhaps, the subject is not one of very great importance, still it is one to which a certain degree of interest attaches itself both for the general reader and for the mycologist.

The earliest Greek writer who takes any notice of fungi is Theophrastus (circ. B.C. 300); there is no allusion to these plants in the works of Homer and Hesiod. The word μύκης indeed occurs in Herodotus (iii. 64), but it there means the cap of the sheath of a sword, from its conical or fungus-like form. Theophrastus (Hist. Plant. i. 1, § 11) speaks of the μύκης and the ὕδνον as having neither root, stem (καυλός), branch, bud, leaf, flower, nor fruit, neither again bark, pith, fibres, nor veins; but in i. 5, § 3, he speaks of the stem (καυλός) of the μύκης as being of uniform structure or evenness, without knots, prickles, or divisions. In i. 6, § 5, the ὕδνον, μύκης, πέζις, and γεράνειον (κεραύνιον) are mentioned as having no root. The μύκητες in iii. 7, § 6, are said to